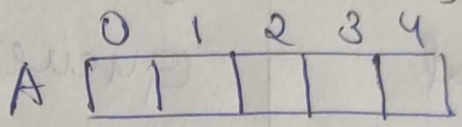
Arrays

→ Collection of similar data elements.

→ If you have some set of integers (or, set of floats, you can group them under one name as an array

→ int A[5];

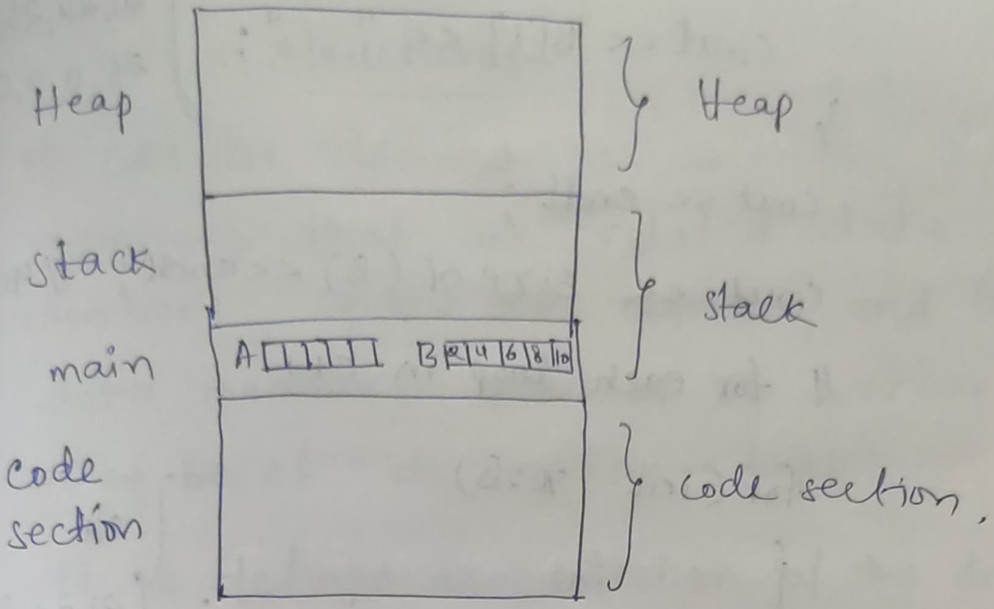


Integer Array named A with 5 integers

we can access all the integers with A

```
→   int   main ()
    {
          int A[5];  – Declaration
Declaration
    +           ← int B[5];= {2,4,6,8,10};
Initialization
          // To accen array
          int i;
          for (i=0; i<5; i++) {
          }     printf ("%d", B[i]);
```

Main Memory



→ If any variable is declared, like an array in this case, so that array will be created here inside stack

Array Practise

```
#include <iostream>
# include <stdio.h>

using namespace std;

int main () {
    int A[5];
     A[0] = 11; A[1] = 12; A[2] = 13;
    int B[10] = {21,22,23,24,25};
    int C[] = {31,32,33};
      cout << A[1] << endl;      o/p: 12
      cout << B[8] << endl;      o/p: 0
      printf ("%d\n", C[0]);     o/p: 31
// for loop
for (int i=0; i<10; ++i)
{
    cout<< B[i] << "  ";
}
cout << endl;

cout << sizeof(B) <<endl;  // 40

// for each loop in C++

for (int x:B)
{
    cout<< x << "  ";
}
cout <<endl;

}
```

o/p:
21, 22, 23, 24,
25, 0, 0, 0, 0, 0

o/p:
21, 22, 23, 24
25, 0, 0, 0, 0, 0

→ we can write c code in C++.

→ we can take array size from input

Ex:-

```
int n;
cout << "Enter size";
cin >> n;
int A[n];
A[0] = 12;
for (int x: A)
{
    cout << x <<endl;
}
```

we cannot initialize variable-sized Array ← int A[n];

o/p: 12 1 2 123

If you Enter size '4' then 12 is printed followed garbage values.